

# **DRAFT**

# **Victoria Glades**

# **Conservation Area**

## **Ten-Year Area Management Plan**

### **FY 2015-2024**



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## OVERVIEW

- **Official Area Name:** Victoria Glades Conservation Area, # 8250
- **Year of Initial Acquisition:** 1982
- **Acreage:** 239.32 acres
- **County:** Jefferson
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Purpose:**
  - A. **Strategic Direction**

Manage the high quality glade, woodland and forest communities to preserve biodiversity while providing opportunities for a variety of public uses.
  - B. **Desired Future Condition**

The desired future condition of Victoria Glades Conservation Area (CA) is a healthy, diverse and sustainable mosaic of glade, woodland and forest that maintains species diversity and provides opportunities for the public to study, hike and enjoy the area.
  - C. **Federal Aid Statement**

N/A

## GENERAL INFORMATION AND CONDITIONS

- I. **Special Considerations**
  - A. **Priority Areas:** Victoria Glade Terrestrial Conservation Opportunity Area, Big River Fisheries Priority Watershed, Jefferson County Glades (The Nature Conservancy Priority Area), Joachim Creek Priority Watershed
  - B. **Natural Areas:** None
- II. **Important Natural Features and Resources**
  - A. **Species of Conservation Concern:** Species of conservation concern are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist.
  - B. **Caves:** None
  - C. **Springs:** None
  - D. **Other:** Occurs in the Big River Dolomite Glade/Oak Woodland Low Hills Landtype Association. This landtype consists of low hills associated with the Jefferson City-Cotter Formation. Historically, glade/woodland complexes were interspersed with an oak woodland matrix (Nigh & Schroeder, 2002).
- III. **Existing Infrastructure**
  - 1 parking lot located on The Nature Conservancy property

- 2.3 miles of hiking trails
- Small stone and metal monument recognizing the family that donated part of a tract of the area

#### IV. Area Restrictions or Limitations

- A. Deed Restrictions or Ownership Considerations:** There is a Cooperative Agreement with The Nature Conservancy to provide land for a parking lot east of Hillsboro-Victoria Road and allow access for Missouri Department of Conservation (the Department) personnel and visitors to the area.
- B. Federal Interest:** Federal funds may be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.
- C. Easements:** None
- D. Cultural Resource Findings:** No known cultural resources.
- E. Hazards and Hazardous Materials:** None observed.
- F. Endangered Species:** Endangered Species are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist
- G. Boundary Issues:** None

### MANAGEMENT CONSIDERATIONS

#### V. Terrestrial Resource Management Considerations

##### **Challenges and Opportunities:**

- 1) Suppress early infestations of invasive plants currently found on the area (e.g., Japanese honeysuckle, sericea lespedeza, tall fescue), and prevent future invasive plant infestations.
- 2) Address impacts of wildfire removal from natural communities, i.e.,
  - Eastern red cedar and sugar maple invading glades and woodlands;
  - Tree species composition shift to shade-tolerant species;
  - Fire intolerant species in woodlands;
  - Decrease in diversity and abundance of ground layer herbaceous vegetation.
- 3) Enhance wildlife habitat and maintain biological diversity by maintaining open glades and woodlands with canopy gaps that allow sunlight to reach the ground-level herbaceous layer.
- 4) Monitor occurrence and relative abundance of as many species as possible on the area.

**Management Objective 1:** Maintain healthy glades with management emphasis on biological diversity.

**Strategy 1:** Monitor glades for invasive vegetation. Mechanically or chemically suppress any infestations that may develop to unacceptable levels.

**Strategy 2:** Utilize prescribed fire to maintain glade openings and suppress invasion by eastern red cedar and sugar maple, while stimulating herbaceous vegetation in glades.

**Strategy 3:** Mechanically or chemically remove any larger eastern red cedar and sugar maple that is not controlled by prescribed fire, but would have been controlled by wildfire.

**Management Objective 2:** Maintain healthy woodlands and forest with management emphasis on biological diversity.

**Strategy 1:** Monitor woodlands for invasive exotic vegetation. Mechanically or chemically suppress any infestations that may develop.

**Strategy 2:** Reduce tree stocking in woodlands to desired stocking levels and to desired hardwood tree species mixes using mechanical or chemical non-commercial thinning methods.

**Strategy 3:** Utilize prescribed fire in woodlands to stimulate herbaceous vegetation and increase oak regeneration.

**Management Objective 3:** Monitor biological diversity over time.

**Strategy 1:** Maintain list of all known species occurrences on the area with dates of documentation. This will be coordinated by the Natural History Biologist and will be conducted in partnership with The Native Plant Society, The Botanical Garden, Webster Groves Nature Study Society, Missouri Prairie Foundation, The Nature Conservancy and other interested groups.

**Strategy 2:** Monitor the relative abundance of Species of Conservation Concern on the area every five years. This will be coordinated by the Natural History Biologist.

## **VI. Aquatic Resource Management Considerations**

### **Challenges and Opportunities:**

- 1) Maintain a healthy riparian corridor in the headwater streams of the Big River Watershed.

**Management Objective 1:** Maintain riparian corridors along streams.

**Strategy 1:** Monitor density of trees in drainages and ensure adequate stocking is maintained to minimize soil erosion. If stocking is inadequate, exclude fire from

riparian corridors until seedlings are allowed to recruit into the overstory and become resistant to top kill by prescribed fire.

## **VII. Public Use Management Considerations**

### **Challenges and Opportunities:**

- 1) Regularly maintain the area for a variety of public uses.
- 2) Deter illegal uses of the area, including the collection of flora and fauna, rock flipping, all-terrain vehicle use and dumping of trash at the parking lot.
- 3) Provide recreational opportunities, such as nature viewing/study, hiking and hunting.
- 4) Build relationships with neighboring land owners and partners, such as the Native Plant Society, the Missouri Botanical Garden, Webster Groves Nature Study Society, Missouri Prairie Foundation and the Nature Conservancy.

**Management Objective 1:** Deter illegal activities at the area.

**Strategy 1:** Post informative signage at the parking lot to encourage users to report illegal activities, such as poaching, soil disturbance and digging, and the collection of rocks, plants and wildlife. Post contact information to report violations.

**Strategy 2:** Perform regular area inspections and patrols.

**Strategy 3:** Utilize open communication with conservation agents about activities on area and address issues as they are reported.

**Management Objective 2:** Provide public hunting and wildlife viewing opportunities.

**Strategy 1:** Maintain healthy habitat for a variety of plants and animals.

**Strategy 2:** Ensure that public hunting opportunities are advertised in the annual hunting regulation booklets, in the Conservation Atlas and in the area brochure.

**Management Objective 3:** Maintain the parking lot. Maintain/enhance the trail system to provide aesthetics, utility and high quality hiking opportunities to the public

**Strategy 1:** Perform routine maintenance on the trails and parking lot.

**Strategy 2:** Perform routine trash pickup, painting and other maintenance activities.

**Strategy 3:** Work with Design and Development to explore methods to repair or replace the parking lot surface.

**Management Objective 4:** Cultivate and maintain a good working relationship with neighboring land owners and natural resource partner groups.

**Strategy 1:** Work with neighbors to minimize boundary trespass or any other issues affecting the conservation area.

**Strategy 2:** Promote habitat management on neighboring landowner properties. This will be done by the Resource Forester and Private Land Conservationist in Jefferson County.

**Strategy 3:** Foster communication with partner groups to maintain the area's species occurrence list.

## VIII. Administrative Considerations

### **Challenges and Opportunities:**

- 1) Keep area users informed.
- 2) Respond to the numerous requests that are received for research and collection of flora and fauna in the area.
- 3) Acquire larger tracts of land (100+ acres) that border the area and occur within the Victoria Glade Wildlife Priority Terrestrial Conservation Opportunity Area.

**Management Objective 1:** Ensure public information about the area is accurate and up-to-date.

**Strategy 1:** Perform annual review of Missouri Atlas data and area brochures.

**Management Objective 2:** Regulate pressure from scientific research on the area.

**Strategy 1:** Maintain moratorium on research projects at discretion of Department Heritage Biologists and the Area Manager.

**Management Objective 3:** Maintain well-marked, accurate boundary lines and area signs.

**Strategy 1:** Paint boundary trees and maintain signs along boundary lines every four years, or as needed.

**Strategy 2:** Paint and maintain area signs.

### **Lands Proposed for Acquisition:**

When available, adjacent land may be considered for acquisition from willing sellers. Tracts that improve area access, provide public use opportunities, contain unique natural communities and/or species of conservation concern, or meet other Department priorities, as identified in the annual Department land acquisition priorities, may be considered.

## MANAGEMENT TIMETABLE

Strategies are considered ongoing unless listed in the following table:

	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
<b>Terrestrial Resource Management</b>										
<i>Objective 3</i>										
Strategy 2				X					X	
<b>Administrative Considerations</b>										
<i>Objective 3</i>										
Strategy 1	X				X				X	

## APPENDICES

### Area Background:

Victoria Glades Conservation Area is in central Jefferson County and was initially acquired in 1982. An additional tract was later added to the area with a partial donation from the family. The 239-acre Victoria Glades CA is similar to Valley View Glades Natural Area and is a high-quality representation of a large complex of dolomite glades, starting just east of the Big River, near Morse Mill, and extending eastward and beyond Hillsboro and Desoto, to Festus, then south into Ste. Genevieve County. This large complex of glades occurs in a band 2 to 5 miles wide. These glades are principally on Jefferson City-Cotter dolomite of Ordovician age.

The glades are commonly found on south and southwest-facing slopes with wooded ridges and are characterized by thin soil and bedrock at or near the surface. Water saturates the ground in winter and spring, but soils become droughty in summer and fall. These glades have been only lightly disturbed by human activity and are currently maintained by periodic prescribed fire and cedar removal.

The plants and animals in the conservation area are similar to what were here at the time of European settlement. The glades are dominated by little bluestem, Indian grass, side oats grama, big bluestem and prairie dropseed. Non-grass species provide good wildlife food and add beautiful color to the glades during seasonal peaks of blooming.

The intermittent and ephemeral streams, which drain the glades, add diversity to the area.

### Current Land and Water Types:

Land/Water Type	Acres	Feet	% of Area
Dolomite Glade	100		42
Woodland and Forest	139		58
<b>Total</b>	<b>239</b>		<b>100</b>
Stream Frontage		2,234	

### Public Input:

We reached out to groups, who either frequently use this area or have interest in the area prior to drafting the plan. We sought input from the Native Plant Society, the Missouri Botanical Garden, Webster Groves Nature Study Society and the Nature Conservancy.

### References:

Nigh, T. A., & Schroeder, W. A. (2002). *Atlas of Missouri ecoregions*. Jefferson City, Missouri: Missouri Department of Conservation.



**Maps:**

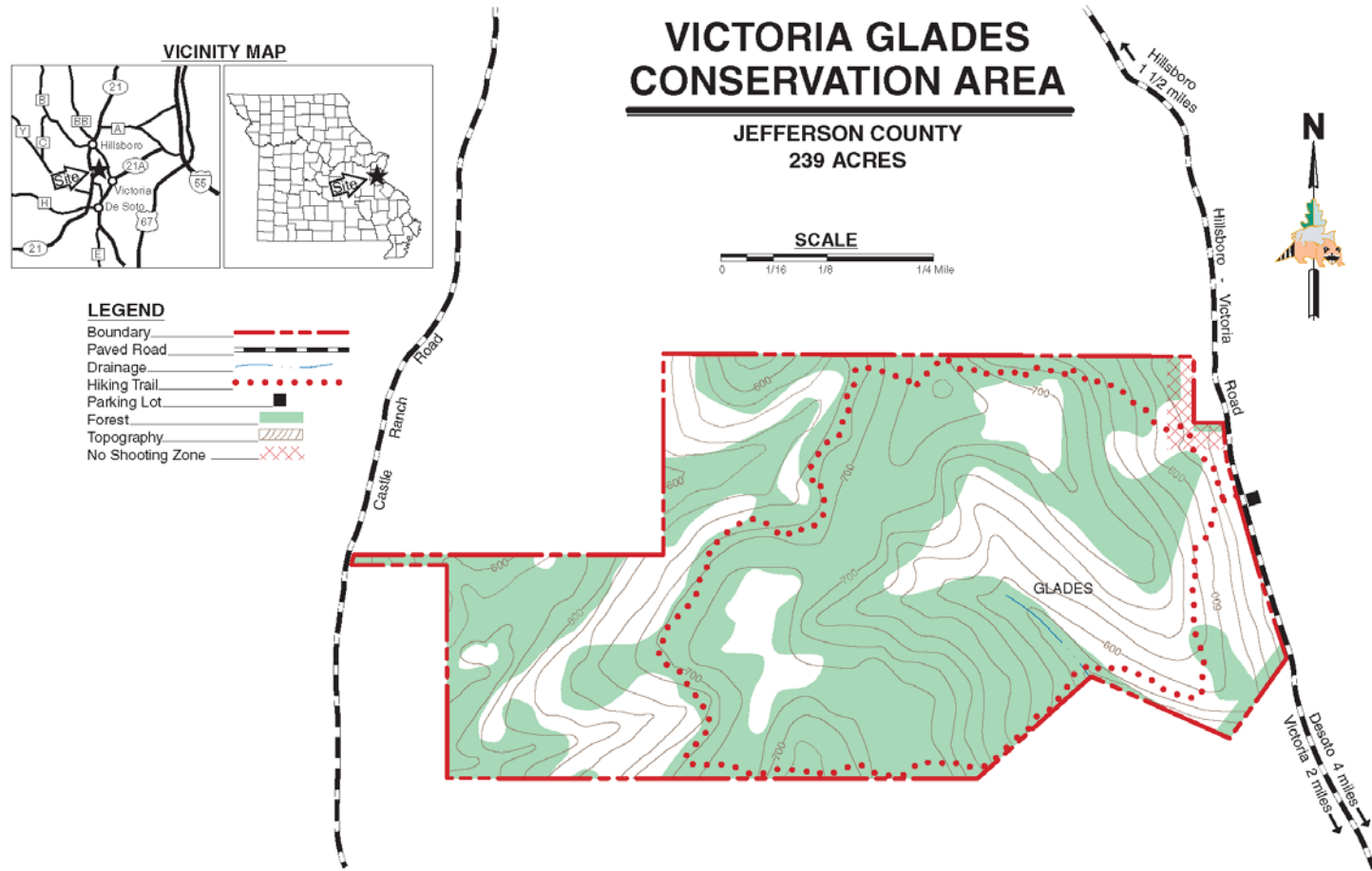
Figure 1: Area Map

Figure 2: Aerial Map

Figure 3: Topographic Map

Figure 4: Current Vegetation Map

Figure 1: Area Map



**Figure 2: Aerial Map**

## Victoria Glades Conservation Area



### Legend

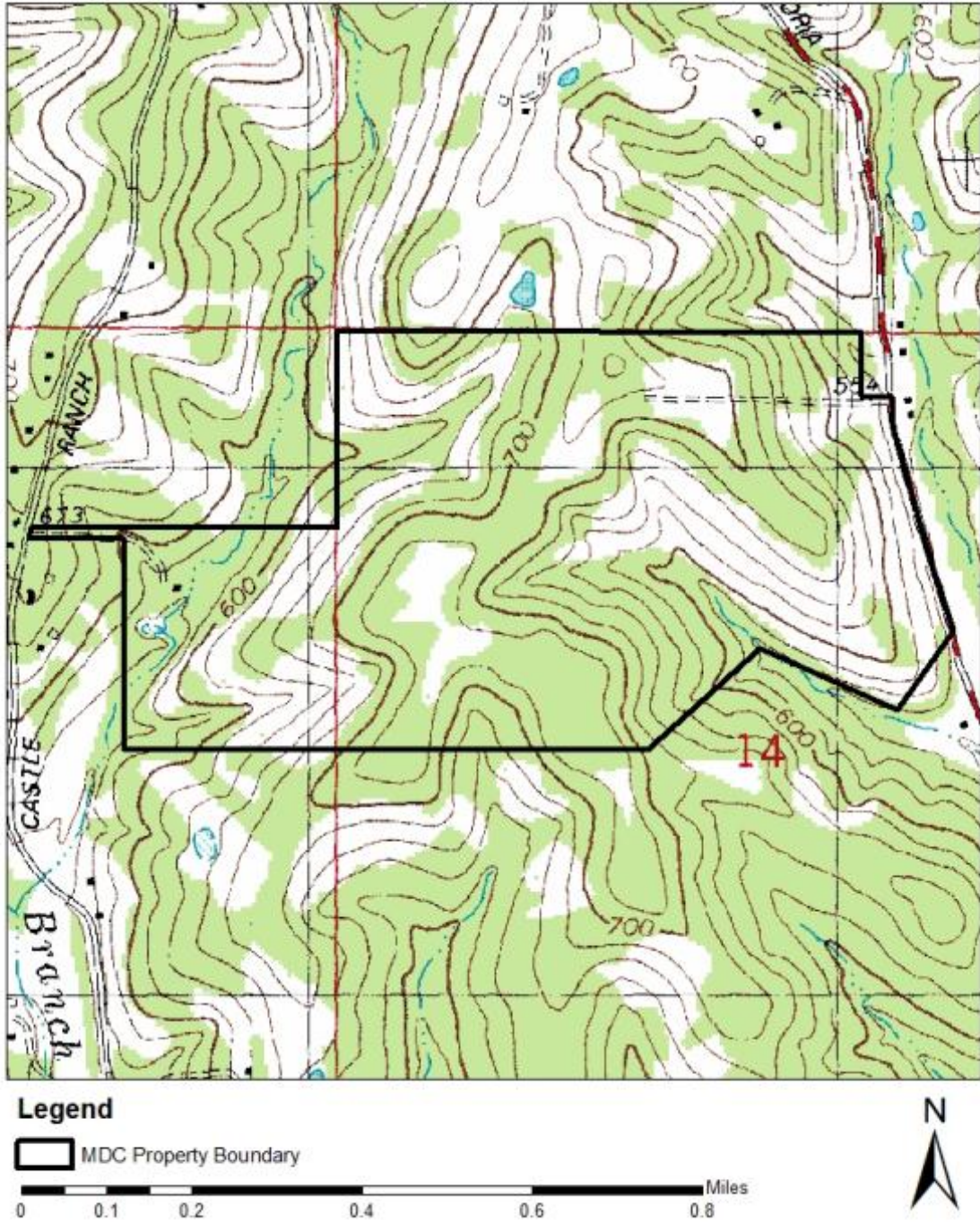
 MDC Property Boundary





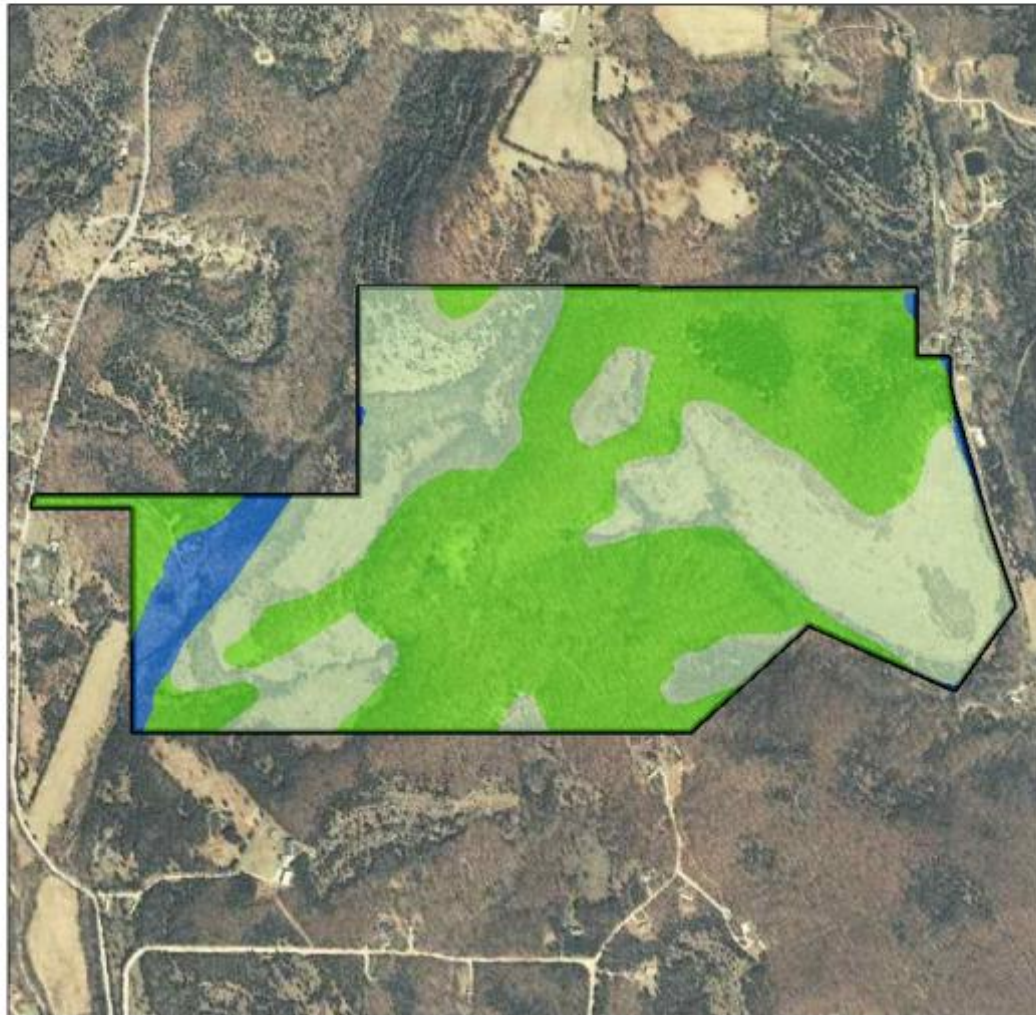
Figure 3: Topographic Map

### Victoria Glades Conservation Area



**Figure 4: Current Vegetation Map**

### Victoria Glades Conservation Area



**Legend**

- Mesic Forest
- Glade/Woodland Complex
- Upland Woodland
- MDC Property Boundary



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